MARX 09/746,391

=> d his

FILE 'HOME' ENTERED AT 14:56:56 ON 28 OCT 2002

FILE 'HCAPLUS' ENTERED AT 15:01:41 ON 28 OCT 2002
E BERNEGGER A?
L1 10 S E4-E7
E ERTL A?
L2 1 S E3
L3 2 S KOLLAT ?.A?
L4 1 S WEISBERG M?.A?
L5 15 S WERBITZKY ?.A?
L6 22 S L1-5
L7 5 S L6 AND ?AZABICYCLO?
L8 3 S L7 AND HYDROLAS?
SELECT RN L8 1-3

FILE 'REGISTRY' ENTERED AT 15:04:52 ON 28 OCT 2002
L9 47 S E45-95

FILE 'HCAPLUS' ENTERED AT 15:05:20 ON 28 OCT 2002
L10 3 S L8 AND L9

FILE 'REGISTRY' ENTERED AT 15:42:07 ON 28 OCT 2002
L11 24003 S NRS=1 AND (103.11.4 OR 16.127.2)/RID
L12 43407 S NRS<3 AND (103.11.4 OR 16.127.2)/RID

FILE 'LREGISTRY' ENTERED AT 15:48:21 ON 28 OCT 2002
L13 STR

FILE 'REGISTRY' ENTERED AT 15:49:49 ON 28 OCT 2002
L14 50 S L13 SSS SAM SUB=L12
L15 1260 S L13 SSS FUL SUB=L12
SAVE TEMP L15 MAR391P/A
L16 498 S L15 AND 103.11.4/RID
L17 762 S L15 AND 16.127.2/RID
L18 191 S L15 AND NRS=1
L19 26 S L18 AND "(HYDROXYMETHYL)"
L20 19 S L18 AND "METHANOL"
L21 45 S L19-20
L22 19 S L20 AND "AMINO"
L23 163 S L17 AND "METHANOL"
L24 70 S L18 AND "ESTER"
L25 96 S L18 AND "ACID"
L26 27 S L25 NOT L24
L27 51 S L17 NOT L19
L28 7 S L16 AND NRS=1
L29 3 S L28 AND "3-AZABICYCLO[2.2.1]HEPT-5-EN-2-ONE"
L30 7 S L29 AND "ACETYL"
L31 2 S L28 AND " 2-AZABICYCLO[2.2.1]HEPT-5-ENE-2-CARBOXYLIC ACID, 3-
L32 18 S L28 NOT L30-31
L33 [illegible] S L28 NOT L29

FILE 'HCAPLUS' ENTERED AT [illegible]
L34 [illegible] S L28 AND
L35 [illegible] S L34 AND
L36 [illegible] S L34 AND
L37 [illegible] S L34 AND
L38 [illegible] S L34 AND

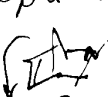
inventor search

3 citations, RN's were selected from ex. citation and searched in RegFile (47 cpd)

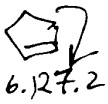
to each citation, 3 cpds are assigned

cites w/ 47 cpds displayed

L12, creating a subset in which STR was searched; every cpd in this subset has 1-2 ring system; each cpd must have



or



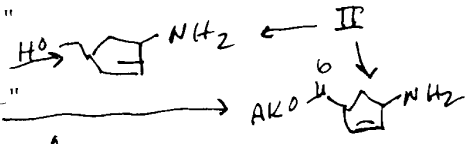
103.11.4/rid 16.127.2 rid

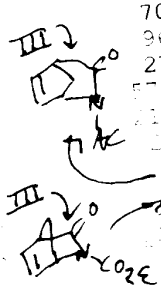
rid = ring identifier

NRS = # of ring systems

bicyclo ring

ring





azabicyclos as reactants

cyclopentenes (II) as products

cyclopentene (II) as reactant

MARK ... 743,191

... S L... PREP ← prep of [structure] → NH2

... S L... AND ... = III → II

... S L... AND ... = II → IV

... S HYDR LASE? ... SUBTILISIN? ... PROTEASE ... SUBTILISIN

... S ENZYM?

... S L41 AND L44-48

... S L46 NOT L8

... S L46 AND L47-48

... S L47 NOT L8

... S L46 AND L48

... 941 S RESOLUTION.NT.

} adding in relevant terms

L51 1 S L46 AND L50 1 cite

L52 1 S L46 NOT L51 1 cite

L53 0 S L48 AND (L50 OR RESOLUT? OR RESOLUTION)

L54 1 S L48 NOT L53 1 cite

L55 ... S L54-55 AND L41 = III → IV

L56 3 S L55 NOT (L45-48 OR L51-54)

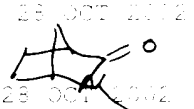
L57 2 S L56 NOT L8 2 cites

... S 162307-09-7/REG#

L8 = inventors search results

FILE 'REGISTRY' ENTERED AT 16:... ON 28 OCT 2002

L58 1 S 162307-09-7/RN ←



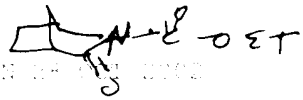
FILE 'HCAPLUS' ENTERED AT 16:34:30 ON 28 OCT 2002

L59 13 S L58 13 cites for ↗

... S 255839-18-0/REG#

FILE 'REGISTRY' ENTERED AT 16:39:56 ON 28 OCT 2002

L60 1 S 255839-18-0/RN ←



FILE 'HCAPLUS' ENTERED AT ...

L61 ... S L60 1 cite only applicant

L62 9 S L59 NOT (L45-48 OR L51-54 OR L8) 9 cites

L63 ... S L61 NOT (L41-48 OR L51-54 OR L8) no cites

FILE 'CASREACT' ENTERED AT ...

L64 STR

L65 2 S L64

L66 25 S L64 FUL 25 cites for enz or chemical transform.

SAVE L66 MARX916CR/A

L67 4 S L66 AND (BIOLOGICAL OR ENZYM? OR SUBTILISIN OR PROTEASE OR P 4 cites for enz. rxn

STR for Reg / HCAPLUS

```
=> d que 134
L13             STR
```

4 X R B — Bond & nodes attached by the bond, are Ring or chain; allows for bicyclo cpds

← this STR gets all claimed cpds; it's the starting point for III & II

```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   7

STEREO ATTRIBUTES: NONE
L15          1260 SEA FILE=REGISTRY SUB=L12 SSS FUL L13
L16           498 SEA FILE=REGISTRY ABB=ON  PLU=ON  L15 AND 1 3.11.4/RID
L27           117 SEA FILE=REGISTRY ABB=ON  PLU=ON  L16 AND NRS 1
L29            25 SEA FILE=REGISTRY ABB=ON  PLU=ON  L28 AND " 2-ACABICYCLO[....]
                  HEPT-5-EN-3-ONE"
L30             7 SEA FILE=REGISTRY ABB=ON  PLU ON  L29 AND "ACETYL"
L34            17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30/RCT
```

Casreact

=> d que l67
L64 STR

looking for any rxn where this azabicyclo is a reactant.

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L66 45 SEA FILE=CASREACT SUB FIL L64 L61 REACTS NC
L67 4 SEA FILE=CASREACT ABB=ON PLU=ON L66 AND (BIOLOGICAL OR ENZYME OR SUBTILISIN OR PROTEASE OR PEPTIDASE OR LIGASE OR HYDROLASE

Inventor search results

[illegible] des Ausdr ins 1

L10 ANSWER 1 OF 3 HCAPLUS COPYRIGHT [illegible] ACS
ACCESSION NUMBER: [illegible]
DOCUMENT NUMBER: [illegible]
TITLE: Preparation of optically active azabicycloheptenone derivatives by stereospecific enzymic hydrolysis
INVENTOR(S): Bernegger-Egli, Christine; Brix, Frank; Roduit, Jean Paul; Werbitzky, Oleg; Guggisberg, Yves
PATENT ASSIGNEE(S): Lonza A.-G., Switz.
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000003032	A1	20000120	WO 1999-EP4814	19990708
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AT [illegible]	A1	[illegible]	AT 1999-[illegible]	[illegible]
EP 1098863	A1	20010516	EP 1999-933017	19990708
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002520047	T2	20020709	JP 2000-559212	19990708
NO 2001000121	A	20010108	NO 2001-121	20010108

PRIORITY APPLN. INFO.:
EP 1998-112719 A 19980708
EP 1998-123949 A 19981217
WO 1999-EP4814 W 19990708

OTHER SOURCE(S): MARPAT 132:[illegible]

[illegible]

AB The invention relates to a biotechnol. method for producing optically active compds. of general formulas (I) and (II), wherein R1 represents acyl or acyloxy, and R2 represents H or C1-C10 alkyl, by reaction of the racemic lactam using a **hydrolase** in the presence of a nucleophile and in the presence of a base in a const. pH range. The invention also relates to the subsequent conversion of compd. I into the optically active 1-amino-4-(hydroxymethyl)-2-cyclopentene of formula (III). Racemic 2-acetyl-2-**azabicyclo**[2.2.1]hept-5-en-3-one (19.25 mL was dild. with water 60 mL and a com. subtilisin soln. (1.5 mL. This soln. was brought to pH 7.5 and incubated at [illegible] with vigorous stirring. After 48 h (1S,4R)-2-Acetyl-2-**azabicyclo**[2.2.1]hept-5-en-3-one with an ee 99% was obtained. Final yield of purified product was 71%.

IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

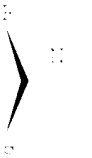
RN 162307-09-7 HCAPLUS

CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

IT 255839-18-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 255839-21-5P
RL: BMF (Biological industrial manufacture); BSU (Biological study); PREP (Preparation)
(preparation of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis
RN 255839-21-5 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-ene-3-carboxylic acid, 2-methyl-, ethyl ester, (1R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 49805-30-3DP, 2-Azabicyclo[2.2.1]hept-5-en-3-one, derivs. 112531-51-8DP, (C2-10 alkyl esters 136522-35-5DP, derivs. 189098-29-1P 200002-40-0P 255839-19-1P
RL: BMF (Bioindustrial manufacture); BSN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis
RN 49805-30-3 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one (9CI) (CA INDEX NAME)

RN [illegible]-38-6 HCAPLUS
IN [illegible]-Pyridinecarboxylic acid, 4-amino-, [illegible] - [illegible] (CA INDEX NAME)

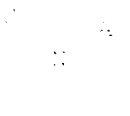
Absolute stereochemistry. Rotation - .

RN [illegible]-41-1 HCAPLUS
IN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl-, (1R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation - .

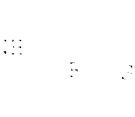
RN [illegible]-40-0 HCAPLUS
IN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN [illegible]-19-1 HCAPLUS
IN 2-Cyclopentene-1-carboxylic acid, 4- acetylamino -, propyl ester, (1S,4R)- [illegible] (CA INDEX NAME

Absolute stereochemistry.



ANSWER [illegible] [illegible] [illegible]-n.

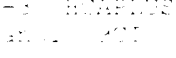
IT 67-56-1, [illegible], [illegible] 71-23-8, [illegible], [illegible] 71-36-3, [illegible], [illegible] 109-99-9, [illegible], [illegible] [illegible]; [illegible]

[illegible] azabicycloheptenone [illegible]

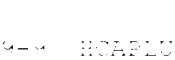
stereospecific enzymic hydrolysis
RN [illegible]-62-1 HCAPLUS
CN [illegible] [illegible], [illegible] (9CI) (CA INDEX NAME)

RN [illegible]-92-7 HCAPLUS
CN [illegible] [illegible] (9CI) (CA INDEX NAME)

RN [illegible]-01-3 HCAPLUS
CN [illegible] [illegible] (9CI) (CA INDEX NAME)



RN [illegible]-62-1 HCAPLUS
CN Furan, tetrahydro- (9CI) (CA INDEX NAME)



IT 9001-62-1, Lipase 9001-92-7, Proteinase
9014-01-1, Subtilisin 9074-07-1, Proteinase, Aspergillus
alkaline 37259-58-8, Serine Proteinase 39450-01-6
RL: CAT (Catalyst use); USES (Uses)
(prepn. of optically active **azabicycloheptenone** derivs. by
stereospecific enzymic hydrolysis)
RN [illegible]-62-1 HCAPLUS
CN Lipase, triacylglycerol (9CI) (CA INDEX NAME)

RN [illegible]-62-1 HCAPLUS
CN Proteinase (9CI) (CA INDEX NAME)

RN [illegible]-01-1 HCAPLUS
CN Subtilisin (9CI) (CA INDEX NAME)

RN [illegible]-07-1 HCAPLUS
CN Proteinase, Aspergillus alkaline (9CI) (CA INDEX NAME)

RN [illegible]-58-8 HCAPLUS
CN Proteinase, serine (9CI) (CA INDEX NAME)

RN [illegible]-01-6 HCAPLUS
CN Proteinase, [illegible] (9CI) (CA INDEX NAME)

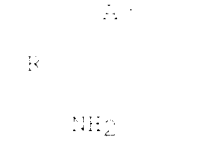
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 255839-20-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

RN 255839-20-4 HCAPLUS

CN Ethanone, 1-[1,5,6-trimethyl-3-(hydroxymethyl)-2-cyclohexen-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT ICM C12P041-06
ICS C12P017-10; C12P013-00; C12P013-12; C07C233-64
CC 16-5 (Fermentation and Bioindustrial Chemistry)
ST **azabicycloheptenone** deriv enzymic resoln proteinase lipase
IT Alkanols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(C1-10; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT Solvents
(aprotic; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT Resolution (separation)
(enzymic; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT 255839-18-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT 255839-21-5P
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT 49805-30-3DP, 2-Azabicyclo[2.2.1]hept-5-en-3-one, derivs. 112531-51-8DP, [illegible] 136522-35-5DP, derivs. 189098-29-1P 200002-40-0P
255839-19-1P
RL: BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); PREP (Preparation)
(prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)
IT 67-56-1, [illegible], 71-23-8, [illegible], 71-36-3, [illegible]

[illegible] 109-99-9, Tetrahydrofuran, biological studies
RL: BPR (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(prepn. of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis

IT 9001-62-1, Lipase 9001-92-7, Proteinase
9014-01-1, Subtilisin 9074-07-1, Proteinase, Aspergillus
[illegible] 37259-58-8, Amano lipase 39450-01-6
RL: [illegible]; [illegible]
(prepn. of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis

IT 255839-20-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)

REFERENCE COUNT: [illegible] THERE ARE [illegible] CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

[illegible]

L1 ANSWER [illegible] OF 3 [illegible] COPYRIGHT [illegible] ACS
ACCESSION NUMBER: [illegible]
DOCUMENT NUMBER: [illegible]
TITLE: Multistep process for the preparation [illegible] -
[illegible] -4- [illegible] -1-methanol.
INVENTOR(S): **Bernegger, Christine**; [illegible]; **Guggisberg, Yves**
PATENT ASSIGNEE(S): [illegible]
SOURCE: [illegible]
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 878548	A2	19981118	EP 1998-108721	19980513
EP 878548	A3	19991013		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6156893	A	20001205	US 1998-73553	19980506
CA 2237297	AA	19981113	CA 1998-2237297	19980511
NO 9802149	A	19981116	NO 1998-2149	19980510
JP 11001493	A2	19990112	JP 1998-127838	19980511
CN 1201794	A	19981216	CN 1998-[illegible]	19980513
US 6137007	A	20001024	US 1999-[illegible]	19990[illegible]
EP 878548	B1	20011212	US 1999-[illegible]	19990[illegible]
US 6262259	B1	20010717	US 1999-[illegible]	19990[illegible]

PRI PRIORITY APPLN. INFO.: [illegible] CH 1997-1119 A 19970513
CH 1997-2748 A 19971113
US 1998-73553 A3 19980506

OTHER SOURCE(S): MARPAT 130:24187

AB A new procedure for the prepn. of [illegible] is claimed. [illegible] -2-**Azabicyclo**[illegible]hept-5-en-3-one is acylated at the amide NH and the compd. is cleaved to form the racemic acylamino cyclopentene deriv. This is stereospecifically benzylated by a biotechnol. process to produce [illegible] -4-hydroxymethyl-2-cyclopentene. A final step is the reaction with N-[illegible] -4,6-dihydroxypyrimidine-5-yl]formamide to produce [illegible] -4-[illegible] -4- [illegible] -5-yl]formamide, which can be cyclized to [illegible] -methanol, which can be [illegible].

IT **9012-56-0P**, N-Acetylaminoacylase **hydrolase**
RL: BAC (Biochemical activity or effector, except adjuvant); BCP (Biochemical process); BIOL (Biological study); PREP (Preparation)
(multistep process for the preparation of [illegible] -4-hydroxymethyl-2-cyclopentene)

RE [illegible]

[illegible]

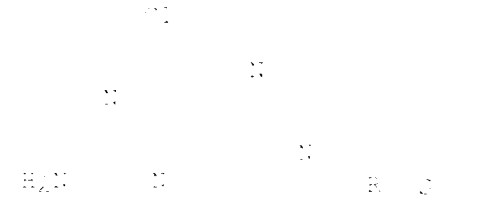
... OTHER TERMS (1) WERE NOT DISPLAYED ...
IT **136522-33-3P 216481-88-8P**

[illegible]

MARPAT [illegible]

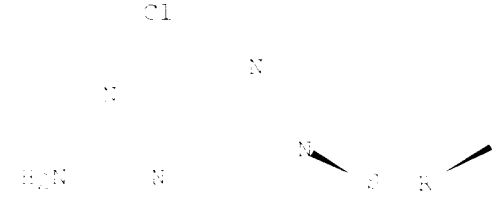
RL: BMF (Biochemical manufacture); BPN (Biosynthetic preparation); CPN (Synthetic preparation); BTCL (Biological study); PREP (Preparation)
multistep process for the prepn. of [1S,4R]- and [1R,4S]-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
RN 168960-18-7 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-(2-amino-6-chloro-9H-purin-9-yl)-, [1S,4R]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 216481-88-6 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-(2-amino-6-chloro-9H-purin-9-yl)-, [1R,4S]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



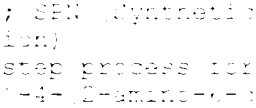
IT **168960-19-8P**
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
multistep process for the prepn. of [1S,4R]- and [1R,4S]-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
RN 168960-19-8 HCAPLUS
CN 2-Cyclopenten-1-methanol, 4-amino-, hydrochloride, [1S,4R]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT 130931-86-1P 168960-18-7P 171887-04-0P
216481-85-5P
RL: PEP (Biosynthetic preparation); RCT (Reactant); SPN (Synthetic preparation); PUR (Purification or recovery); SPN (Synthetic preparation); RACT (Reactant or reagent); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol)

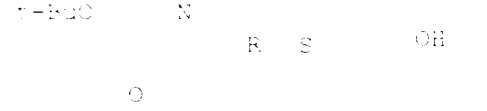
RN [illegible] HCAPLUS
CN Acetamide, N-(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



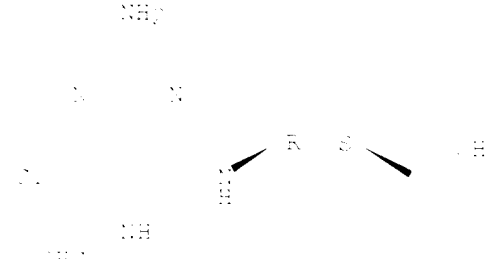
RN 168960-18-7 HCAPLUS
CN Carbamic acid, [(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



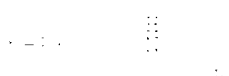
RN 171887-04-0 HCAPLUS
CN Formamide, N-[2-amino-4-chloro-6-[[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]amino]-5-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN [illegible] HCAPLUS
CN Butanamide, N-(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

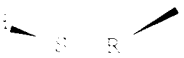


IT 136522-35-5P
BL: BPN (Biosynthetic preparation); PUR (Purification); SYN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
RN 136522-35-5 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT 216481-84-4P 216481-86-6P
BL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
RN 216481-84-4 HCAPLUS
CN Acetamide, N-[(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 216481-86-6 HCAPLUS
CN Butanamide, N-[(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 199395-80-7P 199395-81-8P 199395-82-9P
199395-84-1P 199395-85-2P 216481-83-3P
BL: BSU (Biological study, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR (Purification); RACT (Reactant or reagent); SPN (Synthetic preparation); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

9014-06-6

RL: CAT (Catalyst use); USES (Uses)
multistep process for the prepn. of (1S,4R - and/or 1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

Amidase, penicillin (Cl. ... IN INDEX NAME

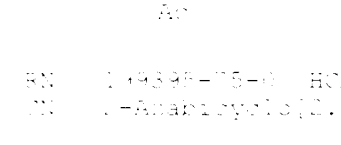
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

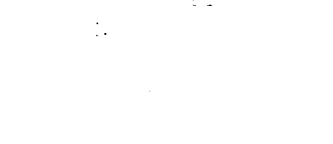
162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 216481-82-2P
216481-87-7P

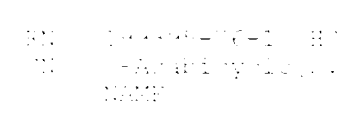
RL: PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
multistep process for the prepn. of (1S,4R - and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

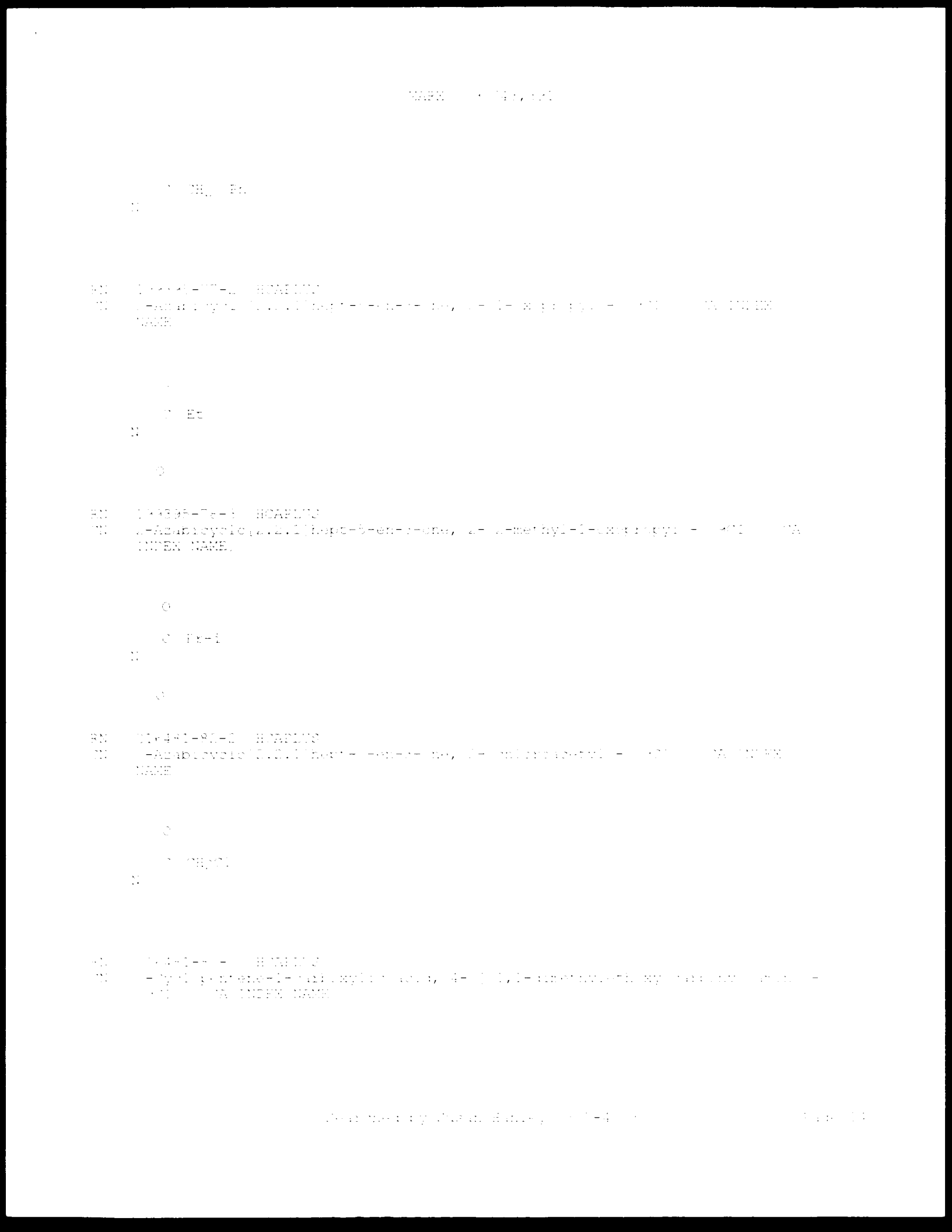
RN 162307-09-7 HCAPLUS

CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(...-IN INDEX NAME)









IT 49805-30-3, 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: BCT (Breakdown or transformation); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); BAPR (Breakdown or transformation, preparation)
multistep process for the preph. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
RN 49805-30-3 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one (9CI) (CA INDEX NAME)

CC 10M C12P017-16
CC C12P013-02; C07C253-26; C07C231-16; C07C251-20
FT C12P017-16, C12R001-36; C12P017-18, C12R001-47; C12P 17-1M, C12R 1-11; C12P017-19, C12R001-07; C12P017-18, C12R001-38; C12P 17-18, C12R 1-11; C12P017-16, C12R001-14
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 7, 27
ST stereoselective aminochloropurinylcyclopentenemethanol synthesis
IT Alcaligenes
Bordetella
Gordonia (bacterium)
Rhodococcus
Rhodococcus erythropolis
multistep process for the preph. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
IT 9012-56-0P, N-Acetylaminoalcohol hydrolase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
from Rhodococcus erythropolis
IT 136522-33-3P 216481-88-8P
RL: BMF (Bioindustrial manufacture); BSN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
multistep process for the preph. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
IT 168960-19-8P
RL: BSN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); SCT (Breakdown); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); BAPR (Breakdown or transformation, preparation)
multistep process for the preph. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
IT 130931-86-1P 168960-18-7P 171887-04-0P
216481-85-5P
RL: BSN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
multistep process for the preph. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol

IT **136522-35-5P**
RL: BPN (Biosynthetic preparation ; RCT (Reactant ; SPN (Synthetic preparation); [illegible] ; PREP (Preparation) ; RACT (Reactant or reagent)
multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT **216481-84-4P 216481-86-6P**
RL: BPN (Biosynthetic preparation ; SPN (Synthetic preparation ; BSU (Biological study); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT **199395-80-7P 199395-81-8P 199395-82-9P**
199395-84-1P 199395-85-2P 216481-83-3P
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation ; PROC (Process); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT **9014-06-6**
RL: CAT (Catalyst use); USES (Uses)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT **162307-09-7P 199395-75-0P 199395-76-1P**
199395-77-2P 199395-78-3P 216481-82-2P
216481-87-7P
RL: PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT **49805-30-3, 2-Azabicyclo[2.2.1]hept-5-en-3-one**
RL: RCT (Reactant); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

[illegible]

[illegible]

[illegible] ANSWER [illegible] HEADING [illegible]
ACCESSION NUMBER: [illegible]
DOCUMENT NUMBER: [illegible]
TITLE: Process for the preparation of amino alcohols and derivatives thereof
INVENTOR(S): **Bernegger-Egli, Christine**; Birch, Oliver M.; Bossard, Pierre; Brändli, Walter; Brix, Frank; Burgauer, Knut; Dür, Laurent; Etter, Kay-Farah; Feigelberg, Ives; Gasser, Martin; Tikal, Eva Maria
PATENT ASSIGNEE S : [illegible] Bernegger-Egli, Christine; Birch, Oliver M.; Bossard, Pierre; Brändli, Walter; Brix, Frank; Burgauer, Knut; [illegible]
[illegible]: [illegible]
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9745529	A1	19971204	WO 1997-EP2838	19970530
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2253897	AA	19971204	CA 1997-2253897	19970530
AU 9731705	A1	19980105	AU 1997-31705	19970530
EP 904348	A1	19990331	EP 1997-927092	19970530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1220695	A	19990623	CN 1997-195182	19970530
JP 2000512488	T2	20000926	JP 1997-541630	19970530
KR 2000016124	A	20000325	KR 1998-709691	19981128
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PRIORITY APPLN. INFO.: [illegible] CH 1996-1364 A 19960531; CH 1997-81 A 19970117; CH 1997-418 A 19970221; WO 1997-EP2838 W 19970530

OTHER SOURCE(S): [illegible] CASREACT 128:10314; MARPAT 128:10314

[illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible]

azabicycloheptenones

9012-56-0P, Amidase

azabicycloheptenones

136522-30-0P 136522-35-5P

azabicycloheptenones and microbial metab. of the products,

199395-80-7P 199395-81-8P 199395-82-9P
199395-83-0P 199395-84-1P 199395-85-2P

azabicycloheptenones

IT 9015-68-3, Asparaginase
RL: [illegible]
azabicycloheptenones and microbial metab. [illegible]
RN 9015-68-3 HCAPLUS
CN Asparaginase (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 49805-30-3, 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)
RN 49805-30-3 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one (9CI) (CA INDEX NAME)

IT 162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 199395-79-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)
RN 162307-09-7 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

RN 199395-75-0 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(1-oxopropyl)- (9CI) (CA INDEX NAME)

RN [illegible] HCAPLUS
CN [illegible]

... Me ...
...

RN 149396-77-1 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(1-oxopropyl)- (9CI) (CA INDEX NAME)

... Et
...

O

RN 149395-78-3 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

...

... Pr-i
...

O

RN 199395-79-4 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(3-chloro-1-oxopropyl)- (9CI) (CA INDEX NAME)

...

... CH2 CH2 Cl
...

...

... azabicycloheptenone; ...

of N-acetylaminoacid. **hydrolase**

IT Agrobacterium
Aspergillus sydowii
Aureobasidium
Bacillus simplex
Fermentation
Pseudomonas
Rhodococcus
Rhodococcus erythropolis
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 9012-56-0P, Amidase
RL: BAC (Biological activity or effector, except adverse ; BOC (Biological occurrence); BSU (Biological study, unclassified); CAT (Catalyst use ; IBI (Properties); PUR (Purification or recovery ; BIOL (Biological study ; OCCU (Occurrence ; PREP (Preparation); USES (Uses
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products

IT 136522-30-0P 136522-35-5P
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products

IT 199395-80-7P 199395-81-8P 199395-82-9P
199395-83-0P 199395-84-1P 199395-85-2P
RL: BPR (Biological process); BSU (Biological study, unclassified ; RCT (Reactant); SPN (Synthetic preparation ; BIOL (Biological study ; PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products

IT 9015-68-3, Asparaginase
RL: CAT (Catalyst use); USES (Uses)
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products

IT 49805-30-3, 2-**Azabicyclo**[3.3.1]hept-6-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products

IT 162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 199395-79-4P
RL: RCT (Reactant); SPN (Synthetic preparation ; PREP (Preparation ; RACT (Reactant or reagent)
(prepn. of amino acids and derivs. thereof from
azabicycloheptenones and microbial metab. of the products

L51 ANSWER 1 OF 1 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

PUBLISHER:

DOCUMENT TYPE:

LANGUAGE:

AB

IT 157732-11-1P 183074-62-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones

RN 157732-11-1 HCAPLUS

CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(acetyloxymethyl)-, (1R,4S)- (9CI)
(INDEX NAME)

Absolute stereochemistry. Rotation (-).

127061-46-5P,
PREP (Preparation)
enzymic
Resolution
enzymic
Configuration
Resolution
enzymic
9001-62-1, Lipase
RL: CAT (Catalyst use); USES (Uses)
RCT (Reactant)
RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
127061-46-5P,
PREP (Preparation)

L52 ANSWER 1 OF 1 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:
N-acetylated lactams

INVENTOR(S):
Dawson, Michael J.; Mankovich, Mahmoud; Wallis, Christopher J.

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO [illegible]	A1	[illegible]	WO 1999-EP5291	19990720
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU [illegible]	A1	[illegible]	AU 1999-[illegible]	[illegible]
AU 736897	B2	20010927		
EP 1003903	A1	20000531	EP 1999-[illegible]	19990720
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9910472	A	20000919	BR 1999-10472	19990720
JP 2001504854	T2	[illegible]	JP 1999-[illegible]	19990720
NZ [illegible]	A	[illegible]	NZ 1999-[illegible]	19990720
US [illegible]	B1	[illegible]	US [illegible]	[illegible]

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): CASREACT 130:206877; MARPAT 130:206877

AB [illegible] enzyme [illegible]

IT 168960-18-7P

RL: BIM, [illegible]; PREP (Preparation)

[illegible]

[illegible]

1,1-Dimethylethyl [illegible] (1R) [illegible] (9CI) INDEX NAME

Absolute stereochemistry. Rotation [illegible]

[illegible]

RN 162307-09-7
BL: BIM (Biological process); BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepg. enantiomerically enriched N-derivatized lactams)
RN 162307-09-7 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-ene-2-carboxylic, 1-methyl-, 1,1-dimethylethyl ester, (1R)- (9CI) (CA INDEX NAME)

[illegible]

Ac

IC ICM C12P041-06
ICS C12P013-04; C07D203-02
NCL 16.2 (Fermentation and Bioindustrial Chemistry)
ST lactam azabicycloheptenone resoln subtilisin
IT Resolution (separation)
(biol.; prepg. enantiomerically enriched N-derivatized lactams)
IT 79090-66-9DP, N-protected
BL: BMF (Bulk industrial manufacture); BIM (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepg. enantiomerically enriched N-derivatized lactams)
IT 168960-18-7P [illegible]
BL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepg. enantiomerically enriched N-derivatized lactams)
IT 151790-58-9P
BL: BIM (Biosynthetic preparation); PUR (Purification or recovery); PRP (Properties); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepg. enantiomerically enriched N-derivatized lactams)
IT 162307-09-7 [illegible]
BL: BPR (Biological process); BSU (Biological study, unclassified);
RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepg. enantiomerically enriched N-derivatized lactams)
IT [illegible]
BL: CAT (Catalyst use); USES (Uses)
(prepg. enantiomerically enriched N-derivatized lactams)
REFERENCE COUNT: [illegible]

L54 ANSWER 1 OF 1 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE: Substrate specificity of glycinamide ribonucleotide transformylase from chicken liver

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several glycinamide ribonucleotide analogs have been prepd. and evaluated as substrates and/or inhibitors of glycinamide ribonucleotide transformylase from chicken liver. The side chain modified analogs, in which the glycine side chain, R = CH_2NH_2, has been replaced by R = CH_2NHCHS and R = $CH_2CH_2NH_2$, are substrates, with V/K (relative intensity) of 0.4 and 16.3, resp. Several carbocyclic analogs of glycinamide ribonucleotide, including the phosphonate deriv. of carbocyclic glycinamide ribonucleotide, did not serve as substrates, but were inhibitors of the **enzyme**, competitive against glycinamide ribonucleotide, with Ki values ranging from 7.4 to 23.6 times the Km for glycinamide ribonucleotide. However, the O-phosphonate analog of carbocyclic glycinamide ribonucleotide did support **enzymic** activity, with V/K (relative intensity) of 1.0. In addn., glycinamide ribonucleoside was neither a substrate for, nor an inhibitor of, glycinamide ribonucleotide transformylase. Furthermore, .alpha.-glycinamide ribonucleotide had no effect on **enzyme** activity. These studies have permit. to define the structural features of the nucleotide substrate required to support **enzymic** activity.

IT 127061-46-5

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

RN 127061-46-5 HCAPLUS

CN 1-Cyclopentene-1-carboxylic acid, 4-[(carboxymethyl)amino]-, methyl ester, (1R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 136522-35-5P

RL: **PREP (Preparation)**; RACT (Reactant or reagent)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)

[illegible]

L1 [illegible] RCT

RN [illegible]

CN [illegible]

[illegible]

L1

[illegible]

[illegible]

IT [illegible] Enzymes

[illegible]

IT Glycinamide ribonucleotide transformylase specificity, liver

IT Kinetics, **enzymic**

liver

Michaelis constant

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT Molecular structure-biological activity relationship

(phosphoribosylglycinamide formyltransferase-inhibiting, substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT [illegible]-02-4

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)

IT [illegible]-93-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT [illegible]-[illegible]-5-[illegible]

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT [illegible]-15-7, Glycinamide ribonucleotide

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT [illegible]-6 [illegible]-4-1

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT [illegible]-[illegible]-1

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

IT [illegible], [illegible]-Thio-[illegible]-ribofuranosyl-1,2-dihydro-3-oxo-4-[illegible]

127061-46-5

RL: RCT (Reactant); RTN (Reaction)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver

136522-35-5P

PREP

(Preparation);

L57 ANSWER 1 OF 2 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 926131	A2	19990630	EP 1998-122293	19981124
EP 926131	A3	20000322		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
NO 9805511	A	19990528	NO 1998-5511	19981126
CN 1218795	A	19990609	CN 1998-125022	19981127
JP 11228510	A2	19990824	JP 1998-337437	19981127
US 20020103360	A1	20020801	US 2001-772801	20010130
US 6448402	B2	20020910		

PRIORITY APPLN. INFO.:

CH 1997-2739	A	19971127
CH 1997-2781	A	19971203
CH 1998-163	A	19980121
CH 1998-703	A	19980327
EP 1998-122293	A	19981124
US 1998-199442	A3	19981124

AB Title compds. were prepd. by metal hydride redn. of 2-

IT 122624-72-0P 136522-30-0P 136522-35-5P
229177-39-3P 229177-46-2P 229177-49-5P
229177-52-0P
RL: INF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

RN

CN

RN

CN

RN [illegible] HCAPLUS
IN [illegible] 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) CA INDEX NAME

Absolute stereochemistry. Rotation (-).

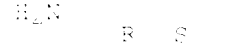
RN [illegible] HCAPLUS
IN 2-Cyclopentene-1-methanol, 4-amino- (9CI) CA INDEX NAME

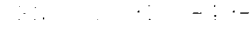
RN 226917-46-2 HCAPLUS
IN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) CA INDEX NAME

CM 1

CRN [illegible]
CMF [illegible]

Absolute stereochemistry. Rotation (-).





RN [illegible] HCAPLUS

RN [illegible]
CN [illegible]

FM 1

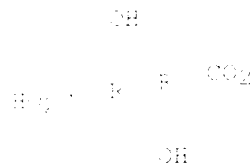
FS [illegible]
MF [illegible]

Absolute stereochemistry. [illegible]

FM 2

RN 5[illegible]-69-4
MF C4 H6 O6

Absolute stereochemistry.



RN 226177-52-0 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

FM 1

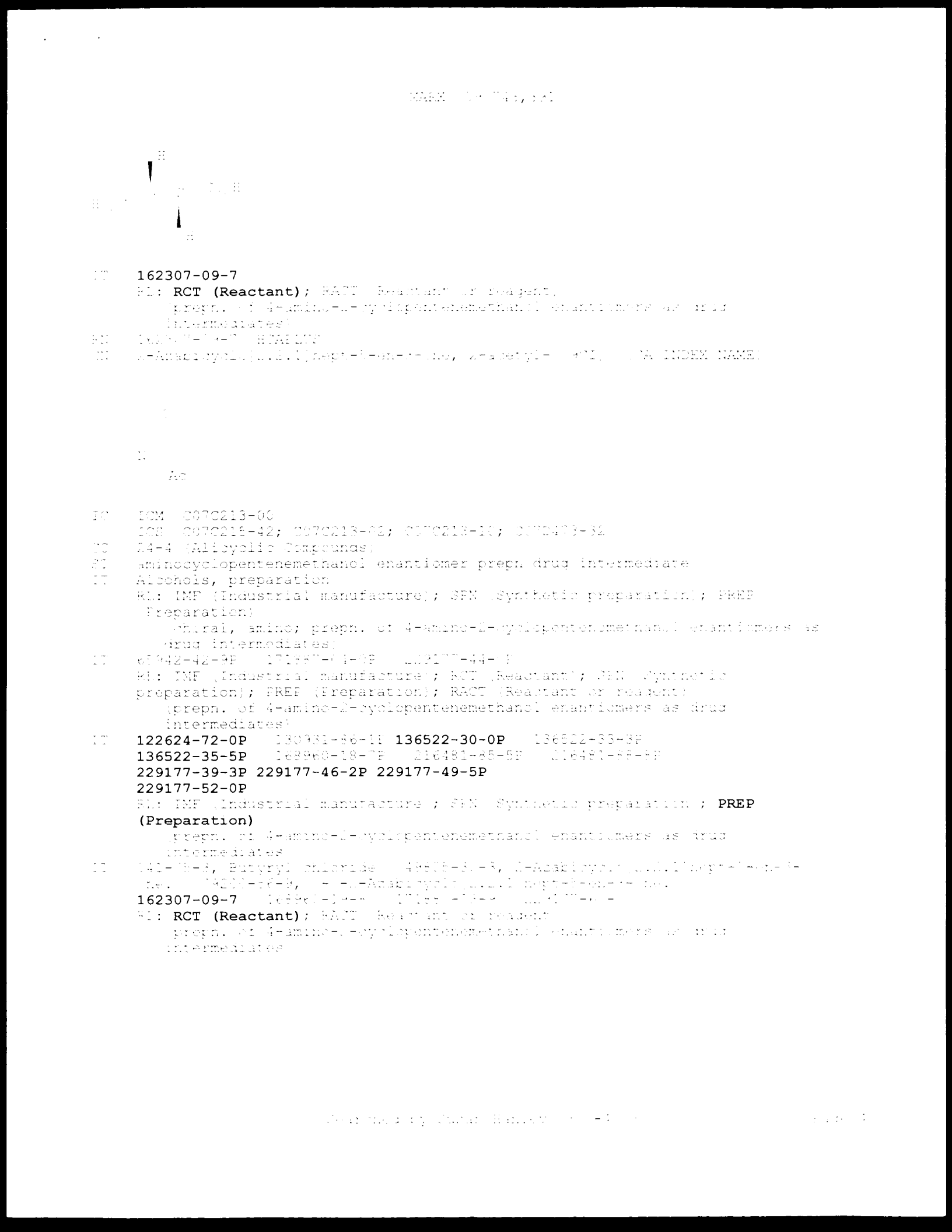
FS [illegible]
MF C6 H11 N O

Absolute stereochemistry. [illegible]

FM [illegible]

FS [illegible]
MF [illegible]

Absolute stereochemistry.



IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

RN [illegible]-4-[illegible] HCA(ILN)

IT [illegible]

AC

IC ICM C07C213-00
ICS C07C213-42; C07C213-02; C07C213-10; C07C403-02
NC 24-4 (Alicyclic Compounds)
ST aminocyclopentenemethanol enantiomer prepn drug intermediate
IT Alcohols, preparation
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(chiral, amino; prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT [illegible]
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT 122624-72-0P 130931-86-1 136522-30-0P 136522-33-3P
136522-35-5P 168960-18-7P 216481-85-5P 216481-88-8P
229177-39-3P 229177-46-2P 229177-49-5P
229177-52-0P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT [illegible]
RN 162307-09-7 [illegible]
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

[illegible]
ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:
AUTHOR(S):
CORPORATE SOURCE:
SOURCE:
PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:
OTHER SOURCE(S):

AB Addn. of phenylselenyl chloride to 2-methyl-2-azabicyclo[2.2.1]hept-5-ene was examd. and the stereoselectivities have been clarified. The adduct derived from 2-azabicyclo[2.2.1]hept-5-ene having an electron-withdrawing group at 2-position were converted to 3'-chloro substituted carbocyclic

IT 200002-40-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(stereoselective addn. of phenylselenyl chloride to bicycloheptene derivs. and prepn. of chloro-substituted carbocyclic

RN 200002-40-0 HCAPLUS

CN [illegible]-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl-, [illegible] (9CI) (CA INDEX NAME)

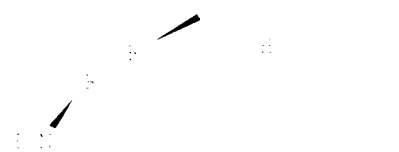
Absolute stereochemistry.

IT 200002-44-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective addn. of phenylselenyl chloride to bicycloheptene derivs. and prepn. of chloro-substituted carbocyclic

RN [illegible] HCAPLUS

CN [illegible]-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl-, [illegible] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 200002-40-0
RL: RCT (Reactant); RACT (Reactant or reagent)
IT 200002-44-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
IT 200002-49-9P 200002-50-2P 200002-52-4P 200002-53-5P 200002-55-7P
200002-56-8P 200002-57-9P 200002-58-0P 200002-59-1P 200002-61-4P
RL: SPN (Synthetic preparation); PREP (Preparation)

[illegible] abs hitstr 162 1-9

L62 ANSWER 1 OF 9 HCAPLUS COPYRIGHT [illegible] ACS

ACCESSION NUMBER: [illegible] HCAPLUS

DOCUMENT NUMBER: [illegible]

TITLE: Ruthenium-catalyzed ring-opening cross-metathesis reaction of 2-azabicyclo[illegible]hept-5-en-3-one derivatives

AUTHOR(S): Ishibashi, Makiko; Saigo, Kazuhiko; Hino, Ayaka

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo, Japan

SOURCE: Heterocycles, [illegible], [illegible]

CODEN: HTCYAM; ISSN: [illegible]

PUBLISHER: [illegible]

DOCUMENT TYPE: [illegible]

LANGUAGE: English

AB

AB An examn. of the ring-opening cross-metathesis reaction of 2-azabicyclo[2.2.1]hept-5-en-3-one (ABH) with allyltrimethylsilane in the presence of Grubbs' catalyst showed that a pair of regioisomeric products I (R = Boc) and II (R = Ts) could be isolated instead of the known regioselective formation of I (R = Boc).

IT 162307-09-7

RL: RCT (Reactant); RACT (Reactant or reagent)

ruthenium-catalyzed ring-opening cross-metathesis reaction of 2-azabicyclo[2.2.1]hept-5-en-3-one

RN 162307-09-7 HCAPLUS

CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

[illegible]

[illegible]

[illegible]

[illegible]

INVENT AUTH :
PATENT ASSIGNEE(S) :
SOURCE:
DOCUMENT TYPE:
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP [illegible]	A2	[illegible]	EP [illegible]	[illegible]
EP [illegible]	A3	[illegible]		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, MC, PT, RO				
NO [illegible]	A	[illegible]	NO [illegible]	[illegible]
CN [illegible]	A	[illegible]	CN [illegible]	[illegible]
JP [illegible]	A2	[illegible]	JP [illegible]	[illegible]
US 20020019360	A1	20020214	US 2001-779811	20010209
US 6448402	B2	20020910		

PRIORITY APPLN. INFO.:

CH 1997-2782	A	19971120
CH 1997-2781	A	19971203
CH 1998-133	A	19980121
CH 1998-723	A	19980327
EP 1998-116895	A	19980907
US 1998-198427	A3	19981124

AB Title compds. were prepd. by metal hydride redn. of 2-azabicyclo[2.2.1]hept-5-en-3-one.

IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol stereoisomers as drug intermediates)

RN 162307-09-7 REGISTRY
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

O

N

Ac

L4 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2011 ACS
ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:
AUTHOR(S):
CORPORATE SOURCE:
SOURCE:
PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:

[illegible]

AB A simple and efficient process for the enantioselective resolu... of N-substituted 2-azabicyclo[2.2.1]hept-5-en-3-ones has been developed using com. available hydrolytic enzymes. This offers a practical appli... for prepn. of chiral [illegible] 2'-fluoro substituted ...

IT 162307-09-7P

RL: BAC (Biological activity or effect); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(enzymic hydrolysis for resoln. of 2-azabicyclo[...]hept-5-en-3-one ...

RN [illegible]

CN [illegible], acetate (ester) (9CI) (CA INDEX NAME)

::

A

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2011 ACS

ACCESSION NUMBER: 1998:[illegible]626 HCAPLUS

DOCUMENT NUMBER: 129:[illegible]

TITLE: .alpha.-Fluorination of 5-phenylsulfinyl-2-azabicyclo[2.2.1]heptan-3-one and synthesis of 2'-fluoro substituted carbovir

AUTHOR(S): Toyota, Akemi; Nishimura, Akiko; Kaneko, Chikara

CORPORATE SOURCE: Pharmaceutical Institute, Tohoku University, Sendai, [illegible], Japan

SOURCE: Tetrahedron Letters ([year]), [illegible], [illegible]

CODEN: TELEAY; ISSN: [illegible]

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:[illegible]

AB Fluorination of phenylsulfinyl bicycloamide using mol. fluorine proceeded preferentially with inversion of the carbon atom having the sulfinyl group to afford .alpha.-fluorinated sulfonyl bicycloamide in fair yield. The fluorinated sulfonyl bicycloamide was converted to 2'-fluoro substituted carbovir via reductive desulfonylchlorination.

IT 162307-09-7

RL: BAC (Biological activity or effect); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(.alpha.-fluorination of phenylsulfinylazabicycloheptanone and synthesis of fluoro substituted carbovir)

RN [illegible]

CN [illegible]-2-azabicyclo[2.2.1]hept-5-en-3-one, 1-acetate (ester) (9CI) (CA INDEX NAME)

::

A

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CORPORATE SOURCE: Pharmaceutical Inst., Tohoku Univ., Sendai, 980-77, Japan
SOURCE: Tetrahedron Letters (1977), 18(11), 1001-1004 CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Pergamon
DOCUMENT TYPE: Journal
LANGUAGE: English
AB [illegible] 1-azabicyclo[3.1.1]heptane-3-one, 1-azabicyclo- [illegible] [illegible] INDEX NAME

IT 162307-09-7P
RL: BAC (Biological activity or effector); BSU (Biological study, unclassified); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of the antiviral agent cytarabine from arabinosylcytosine via regioselective epoxide ring cleavage)
RN [illegible] HCAPLUS
CN 1-Azabicyclo[3.1.1]hept-3-en-2-one, 1-acetyl- (9CI) [illegible] INDEX NAME

IT
A:

L62 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:771644 HCAPLUS
DOCUMENT NUMBER: 124:8568
TITLE: Iodofluorination of 2-azabicyclo[3.1.1]hept-3-en-2-ones and related compounds: regio- and stereoselectivities
AUTHOR(S): Ikeda, Akemi; Ueno, Yoshinori; Kawase, Mikiaki
CORPORATE SOURCE: Pharmaceutical Inst., Tohoku Univ., Sendai, 980-77, Japan
SOURCE: Tetrahedron Letters (1995), 36(44), 8103-6 CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:8568
AB Iodofluorination of 2-azabicyclo[3.1.1]heptenes and cyclopentenylamines with the NHZ group in the allylic position and the regio- and stereoselectivity were studied.
IT 162307-09-7
RL: BAC (Biological activity or effector); BSU (Biological study, unclassified); PREP (Preparation); RACT (Reactant or reagent)
(regio- and stereoselectivity in iodofluorination of 2-azabicyclo[3.1.1]heptenones and related cmds.)
RN [illegible] HCAPLUS
CN 1-Azabicyclo[3.1.1]hept-3-en-2-one, 1-acetyl- (9CI) [illegible] INDEX NAME

ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:
Synthesis of 1-substituted and 1,4-disubstituted 1,2,3-triazole nucleosides and 1,2,3-triazole C-nucleosides. 16. Addition of a second molecule of 1-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-4-ethynylpyrimidine nucleosides to azides: synthesis of difluorinated bis(pyrimidine nucleoside) compounds
AUTHOR(S):
Toyota, Akemi; Kitazawa, Megumi; Hasunami, Chie; Katagiri, Noboya; Kaneko, Chikara
CORPORATE SOURCE:
Pharm. Inst., Tohoku Univ., Sendai, Miyagi, Japan.
SOURCE:
Tetrahedron (2005), 61(42), 9955-9966
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER:
Elsevier
DOCUMENT TYPE:
Journal
LANGUAGE:
English
OTHER SOURCE(S):
CASREACT 144:84477

AB
Azido, 4-ethynyl, fluorinated 2'-deoxy-β-D-arabinofuranosyl, pyrimidine nucleosides, substituted at the 5-position with halogen, Me, or Me-containing groups, were treated with Cu(I) salts to give the corresponding 1,4-disubstituted 1,2,3-triazole C-nucleosides. The reaction of 1-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-4-ethynyl-5-substituted-pyrimidin-2-one derivs. with azido-substituted pyrimidine nucleosides in the presence of Cu(I) salts afforded the corresponding bis(pyrimidine nucleoside) compds. in which the two pyrimidine nucleosides were connected through a 1,2,3-triazole ring. Thus, 1-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-4-ethynyl-5-methylpyrimidin-2-one was treated with 1-(3-azido-2,3-dideoxy-β-D-erythro-pentofuranosyl)thymine in the presence of CuSO4 and sodium ascorbate in DMF/H2O to give 1-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-4-[1-(3-deoxy-β-D-erythro-pentofuranosyl)thymin-3-yl-1,2,3-triazol-4-yl]-5-methylpyrimidin-2-one.

RN 162307-09-7

L.67 ANSWER 1 OF 4 CASREACT

ACCESSION NUMBER:
TITLE:
INVENT'R S' :
PATENT ASSIGNEE S' :
SOURCE:
DOCUMENT TYPE:
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9897386	A1	19990316	AU 1998-97386	19980820
AT [illegible]	B2	[illegible]		
BR [illegible]	A1	[illegible]	BR [illegible]	[illegible]

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP [illegible]	A	[illegible]	EP [illegible]	[illegible]
JP 2001516354	T2	[illegible]	JP [illegible]	[illegible]
NO [illegible]	A	[illegible]	NO [illegible]	[illegible]
US [illegible]	B1	[illegible]	US [illegible]	[illegible]

PRIORITY APPLN. INFO.:

GB 1997-17928	19970822
WO 1998-EP5291	19980820

OTHER SOURCE(S): MARPAT 130:208877

AB The present invention relates to a process [illegible] enzyme [illegible].

[illegible]

[illegible]

[illegible] 1. [illegible], [illegible], THF
2. H[illegible], Water

[illegible]

[illegible]

REF: [illegible] Int. Appl., [illegible]

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L67  ANSWER 1 OF 4  CASREACT  COPYRIGHT [illegible] ACS
IT   ICM  C12P041-00
     ICS  C12P013-00; C07D209-52
CC   16-2 (Fermentation and Bioindustrial Chemistry)
ST   lactam azabicycloheptenone resoln subtilisin
IT   Resolution (separation)
        (biol.; prepg. enantiomerically enriched N-derivatized lactams)
IT   [illegible]-56-4PP, N-protected
     RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL
     (Biological study); PREP (Preparation)
        (prepg. enantiomerically enriched N-derivatized lactams)
IT   [illegible]960-18-7P   1[illegible]098-2[illegible]-1P
     RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP
     (Preparation)
        (prepg. enantiomerically enriched N-derivatized lactams
IT   [illegible]
     RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); RCT
     (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or
     reagent
        prepg. enantiomerically enriched N-derivatized lactams
IT   [illegible]   [illegible]
     [illegible]
     [illegible]
     [illegible]
        [illegible]
IT   [illegible], Savinase
     [illegible]
        [illegible]
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[illegible]

[illegible]

L47 ANSWER [illegible] OF 4 MARPAT COPYRIGHT [illegible] ACS

ACCESSION NUMBER: [illegible] MARPAT
TITLE: Process for the preparation of amide alcohols and derivatives thereof
INVENTOR(S): Baumeyer-Egli, Christine; Birch, Lynn M.; Bonsera, Pierre; Brigger, Walter; Brun, Frank; Burgdorf, Knut; Lee, Laurent; Ritter, Kay-Uwe; Schubert, Uwe; Steiner, Martin; Urban, Eva Maria
PATENT ASSIGNEE(S): Lonza A.-G., Switz.; Baumeyer-Egli, Christine; Birch, Lynn M.; Bonsera, Pierre; Brigger, Walter; Brun, Frank; Burgdorf, Knut; Lee, Laurent
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9746529	A1	19971204	WO 1997-EP2838	19970530
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2253977	AA	19971204	CA 1997-2253977	19970530
AU 9731706	A1	19980105	AU 1997-31706	19970530
EP 904348	A1	19990331	EP 1997-925494	19970530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, SE, PT, IE, FI				
CN 1220695	A	19990623	CN 1997-195152	19970530
JP 2000512488	T2	20000926	JP 1997-541683	19970530
KR 2000016124	A	20000325	KR 1998-709941	19981128
US 6369850	B1	20020409	US 1999-194624	19990531
			CH 1996-1354	19960530
			CH 1997-262	19970210
			CH 1997-918	19970414
			WO 1997-EP2838	19970530

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 126:32414

[illegible]

[illegible]

[illegible]

enzymes

[illegible]

L47 ANSWER 2 OF 4 MARPAT COPYRIGHT 2002 ACS on STN
ACCESSION NUMBER: [illegible]
TITLE: [illegible]
INVENT'R(S): [illegible]
PATENT ASSIGNEE(S): [illegible]
DOCTYPE: [illegible]
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

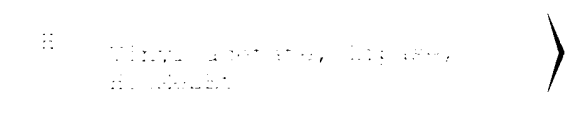
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703053	A1	19970130	WO 1996-US11579	19960710
W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9664896	A1	19970212	AU 1996-64896	19960710
PRIORITY APPLN. INFO.:			US 1995-499859	19950710
			WO 1996-US11579	19960710

OTHER SOURCE(S): MARPAT 126:[illegible]
RE

[illegible]

[illegible]

AB [illegible] R = H or acyl; R1,R2 = H or substituent; Z = O, S, CH2, or substituted alkylene; etc.; dashed line = optional bond where present. Thus, 2-azabicyclo[2.2.1]hept-5-en-3-one was treated with [illegible] to give [illegible] R = H, R1 = R2 = H, Z = CH2, dashed line = bond.



REF: [illegible]

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L67 ANSWER 3 OF 4 CASREACT COPYRIGHT 2002 ACS
IC ICM C07D221-02
ICS C07D265-04; C07D265-28; C07D279-04; C07D291-12; C07D491-06; C07D491-056
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
ST azabicycloheptenone hydroxymethyl; hydroxymethylation azabicycloheptenone
IT 157732-10-0P 157732-11-1P 157810-20-3P 183074-67-6P 187675-95-2P
187675-96-3P 187675-97-4P 187675-98-5P 187675-99-6P 187676-00-2P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 2-(hydroxy- or acyloxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-ones and analogs
IT [illegible]-96-4, 2,2-Dimethoxypropane 111-44-4, Benzoyl chloride 141-75-3, Butyryl chloride 4848-30-5, 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: ROT (Reactant ; RACT (Reactant or reagent)
(prepn. of 2-(hydroxy- or acyloxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-ones and analogs

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT 19156-51-1P, Tosyl cyanide
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(generation and cycloaddn. reaction of, with cyclopentadiene)

IT 112629-73-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and GABAergic agonist activity of)

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

IT [illegible]

[illegible]

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US 097433910CP1

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Dossier: 09743391

Legal Date: 10-31-2002

No.	Doccode	Number of pages
1	IMIS	1
2	NPL	5
3	NPL	4

Total number of pages: 10

Remarks:

Order of re-scan issued on .....